

## Subject Index—Volumes 138–145

### A

#### Abstracts

- American Fracture Association tour of Norway, Finland, Sweden and Denmark, **142:267**
- transactions of thirty-first annual meeting of Association of Bone and Joint Surgeons, **143:278**
- transactions of thirty-ninth annual meeting of American Fracture Association, **144:339**

#### Acetabulum

- idiopathic protrusion acetabuli, **138:228**
- radiographic landmarks of, **141:166**

- Achilles tendon, rerupture after nonsurgical treatment, **140:175**

#### Achondroplasia

- cartilage ultrastructure in, **143:251**
- leg lengthening in, **144:194**

#### Acid phosphatase

- activity in subchondral bone from osteoarthritis hips, **140:85**
- localization in giant cell tumor of bone, **141:295**

- Acinetobacter calcoaceticus*, hand infection from, **140:184**

#### Acrylic cement

- barium sulfate affecting polymerization temperature of Surgical Simplex P, **145:287**
- in cervical spine fixation, **139:276**
- gentamicin affecting shear and interface strengths of, **141:96**
- implantation after femoral reaming, **141:74**
- in internal fixation of trochanteric femoral fractures, in geriatric patients, **138:41**
- and loosening of femoral stems in hip replacement, **141:17, 66**
- and methylmethacrylate metabolism in man, **141:90**
- silver salt additives in, **143:266**

Adolescence. *See* Pediatric orthopedics

- Adrenal adenoma, and leg length discrepancy, **144:210**

Adrenal steroids. *See* Corticosteroids

- Agenesis, sacral, **139:52**

- anomalies with, **145:168**

- Alcohol syndrome, fetal, orthopedic aspects of, **139:58**

- Alcoholism, and osteonecrosis of femoral head, **143:222**

- Alkaline phosphatase, activity in subchondral bone from osteoarthritic hips, **140:85**

- Allescheria boydii*, osteomyelitis from (*Letters*), **138:311**

#### Amputation

##### above-knee

- and preservation of functional stump after hip disarticulation, **141:217**
- and rehabilitation with rigid dressings, **143:133**
- and healing in dysvascular foot lesions, **142:110**
- Anaerobic organisms, and osteomyelitis in childhood, **145:230**

- Androgens, role in osteoporosis, **144:286**

#### Ankle

##### arthrodesis of

- follow-up study of, **142:146**
- in hemophilia, **138:206**
- in bicycle spoke fracture, **144:230**
- congenital vertical talus, **139:128**
- fractures of, evaluation of, **138:17, 111**
- ligamentous injury affecting, **140:266**
- normal talar tilt angle, **140:37**
- osteochondritis dissecans of talus, **144:264**
- prosthesis for, **142:141**

#### Antibiotics

- gentamicin affecting shear and interface strengths of bone cement, **141:96**
- oxacillin in foot ulcers, and clostridial myonecrosis development, **138:250**
- in subacute sepsis of hip, **141:143**

- Anticoagulants, prophylactic, in hip replacement arthroplasty, **141:134**

- Anticonvulsants, osteomalacia from, **139:216**

- Antlers of deer, bioelectric potentials in, **142:237**

- Arizona hinshawii*, osteomyelitis from, **139:110**  
 Arterial conditions. *See* Vasculature  
 Arthritis. *See also* Bowel disease with arthritis; Osteoarthritis; Rheumatoid arthritis; Septic arthritis and bilateral total knee replacement under one anesthetic, **140:153**  
   hemophilic, chronic, **138:203**  
   juvenile chronic, **143:8**  
 Arthrodesis  
   of ankle joint  
     follow-up study of, **142:146**  
     in hemophilia, **138:206**  
   compression, of finger joints, **145:183**  
   of first metatarsophalangeal joint, **142:48**  
   of knee, in hemophilia, **138:206**  
   of shoulder, posterior approach in, **139:169**  
   of wrist, **142:164**  
 Arthrography, septic arthritis after, **145:237**  
 Arthroplasty. *See* Prostheses  
 Arthroscopy of knee,  
   in patellofemoral joint disorders, **144:45**  
 Aspiration treatment  
   computerized tomography with, **139:146**  
   in septic arthritis of hip, in children, **139:81**  
 Asymmetry, of lower extremities, **144:198**  
 Atlas. *See* Cervical spine  
 Austin-Moore prosthesis, for functional above-knee stump after hip disarticulation, **141:217**  
 Autoimmunity, in degenerative disk disease, **142:215**  
 Avulsion fracture, of tibial attachment of posterior cruciate ligament, **143:107**  
 Axis. *See* Cervical spine

## B

- Bacillus cereus*, and septic arthritis after arthrography, **145:237**  
 Back pain, low  
   and hysterical personality, **140:42; 145:158**  
   and lumbar disk herniation  
     lateral, extreme, **138:222**  
     simulation by tumors of pelvic girdle, **138:217**  
 Bacteroidaceae, and osteomyelitis in childhood, **145:230**  
 Barium sulfate, and polymerization temperature of Surgical Simplex P, **145:287**  
 Behçet's syndrome, **143:8**  
 Bicycle spoke fracture, **144:230**  
 Bioassay of joint fluids, in rheumatoid arthritis, compared to clinical status, **144:299**  
 Bioelectric potentials. *See* Electric current  
 Biomechanics, of patella, **144:9, 51, 70**  
 Biopsy, computerized tomography with, **139:146**  
 Blood flow, in bone, rates in various regions, **138:263**  
 Blood vessels. *See* Vasculature  
 Bone

- barrier to material transfer at bone-cartilage interface, **145:273**  
   constant direct current affecting osseous defect, **142:219**  
   control of induction in soft tissues, **143:245**  
   electrically stimulated osteogenesis, **141:266**  
   formation after pelvic injury, **140:80**  
   fractures of. *See* Fractures  
   grafting of. *See* Grafts  
   hormones affecting tissue in culture, **142:196**  
   inductive capacity of transplant materials, **140:208**  
   lining cells  
     calcitonin affecting, **139:250**  
     parathyroid hormone affecting, **138:254**  
   manipulation of cell populations in treatment of osteoporosis, **143:227**  
   matrix morphogenetic activity affected by pulverization, **141:281**  
   metastases of renal cancer, regression of, **138:246**  
   mineral content after tibia shaft fractures, **144:266**  
   regional blood flow rates in, **138:263**  
   scans of. *See* Radionuclide imaging  
   subchondral cyst of, **144:212**  
   tetracycline labeling of, **140:240**  
   tumors of. *See* Tumors  
   turnover in basic multicellular units, **143:227**  
   vitamin D action on, **139:211**  
 Bowel disease with arthritis, **143:8**  
   in childhood, **143:80**  
   clinical spectrum of, **143:63**  
   epidemiology of, **143:23**  
   radiology of, **143:43**  
 Braces  
   in Legg-Calvé-Perthes disease, and early mobilization, **139:70**  
   quadrilateral cast brace, in ipsilateral fracture of femur and tibia, **142:115**  
 Buck's traction, in fractures of thigh, **140:2**  
 Bunions, and arthrodesis of first metatarsophalangeal joint, **142:48**  
 Burns' test, in low back pain, **140:42**  
 Bursal osteochondromatosis, **144:269**

## C

- Caffey's syndrome, **144:276**  
 Calcitonin  
   effects on bone lining cells, **139:250**  
   effects on skeletal tissue in culture, **142:196**  
   and fracture healing, **141:303**  
   role in osteoporosis, **144:287**  
 Calcium  
   dietary requirements for, and calcium therapy, **140:216**  
   plasma levels of  
     maintenance by bone lining cells, **138:254**  
     vitamin D role in, **139:206**

- Carcinoma. *See* Tumors
- Carpal conditions. *See* Wrist
- Cartilage
- barrier to material transfer at bone-cartilage interface, 145:273
  - cell differentiation in, 139:185
  - collagenous architecture of, 139:267
  - in dorsal defect of patella, 143:131
  - healing affected by collagen sponge implants, 144:326
  - in knee joint instability, 140:262
  - synovial chondromatosis. *See* Osteochondromatosis
  - ultrastructure in connective tissue disorders, 143:251
- Casts or braces
- in Legg-Calvé-Perthes disease, and early mobilization, 139:70
  - pins-in-plaster for femoral fractures, negative experiences with, 138:243
  - quadrilateral, in ipsilateral fracture of femur and tibia, 142:115
- Caudal regression syndrome, 145:168
- Cells
- bone lining cells
    - calcitonin affecting, 139:250
    - parathyroid hormone affecting, 138:254  - cartilage cell differentiation, 139:185
  - fibroblasts in tissue culture, synovial fluid affecting, 138:279
  - manipulation of populations in treatment of osteoporosis, 143:227
  - metabolic properties of osteogenic sarcoma cells, 140:247
  - origin of osteoclasts, 145:252
- Cement. *See* Acrylic cement
- Cerebral palsy
- coxa vara with, 144:336
  - muscle shortening and hip derangement in, 144:186
  - and pathology of spastic muscle, 142:223
- Cervical spine
- atlanto-axial subluxation in Down's syndrome, 140:66
  - axial traction affecting, 140:47
  - cement fixation in, 139:276
  - effects of axial loading on healthy adolescent spines, 139:17
  - ossification of posterior longitudinal ligament, 140:58
  - osteomyelitis in heroin users, 144:241
- Charnley arthroplasty of hip
- long-term follow-up of, 141:28
  - and loosening of stem prosthesis, 141:66
  - and lysis of femoral neck, 145:208
- Chevron osteotomy, in hallux valgus, 142:44
- Childhood conditions. *See* Pediatric orthopedics
- Chondrectomy, partial, and subchondral bone drilling in chondromalacia patellae, 144:114
- Chondrocytes, precursor cells to, 139:185
- Chondromalacia patellae, 144:22
- arthroscopic diagnosis of, 144:46
  - classification system for, 144:55
  - operative management of, 144:37
  - partial chondrectomy and subchondral bone drilling in, 144:114
  - proximal realignment in, 144:63
  - rational approach to treatment of, 144:107
  - spongialization in, 144:74
- Clavicle. *See also* Sternoclavicular joint
- congenital pseudarthrosis of, surgery in, 139:64
  - non-union of, treatment of, 138:141
  - compression plate in, 138:154
  - osteoid osteoma of, 143:162
- Clavus, interdigital, predisposition for, 142:103
- Clostridia
- and myonecrosis after oxacillin in foot ulcers, 138:250
  - and osteomyelitis in childhood, 145:230
  - septic arthritis from, 139:92
- Coagulolysis assay, in detection of deep vein thrombosis, 142:190
- Coccidioidomycosis, of spine, 140:78
- Colchicine, in damaged disk syndrome, 143:183
- Colitic arthritis. *See* Bowel disease with arthritis
- Collagen
- in articular cartilage, 139:267
  - sponge implants of, and healing of osteochondral defects, 144:326
  - type transition *in vivo*, 139:188
- Compartment syndrome, of interosseous muscles of hand, 140:23
- Compression
- of peroneal nerve, by ganglion in peroneus longus muscle, 140:172
  - of spinal cord, in Paget's disease with osteosarcoma, 141:260
- Compression arthrodesis, of finger joints, 145:193
- Compression osteotomy, of tibia, 140:103
- Compression plates. *See* Plate fixation
- Compression screw
- in intertrochanteric fractures of hip, 141:184
  - orientation across oblique fractures, 143:271
- Compression syndrome
- patellar, Z-plasty lateral retinacular release in, 144:110
  - from ski boots, 140:109
- Congenital deformities. *See* Pediatric orthopedics
- Connective tissue disorders, cartilage ultrastructure in, 143:251
- Contracture
- extension, of knees in meningomyelocele, 144:260
  - of thumb, adduction, with bipartite trapezium, 145:199
- Corns, soft, predisposition for, 142:103
- Cortical hyperostosis, infantile, 144:276
- Corticosteroids

- injections of, and *Mycobacterium abscessus* infection of knee, **140:162**  
 in prophylaxis of fat embolism syndrome, **143:211**  
 role in osteoporosis, **144:288**  
 Coxa vara, with cerebral palsy (*Letters*), **144:336**  
 Crescent sign, in osteonecrosis of femoral head, pathogenesis of, **140:273**  
 Crohn's disease, arthritis with. *See* Bowel disease with arthritis  
 Cruciate ligament  
   anterior  
     epiphyseal osteochondroma of, **139:86**  
     repair of, **143:97**  
   posterior, avulsion fracture of tibial attachment of, **143:107**  
   stents in knee reconstruction, **143:90**  
 Cyst  
   formation in hemophilia, **138:213**  
   popliteal, **144:215**  
   in shoulder, vascular compromise in, **143:151**  
   subchondral, of bone, **144:212**  
 Cytomegalic inclusion disease, fractures in, **144:280**
- D**
- Darrach procedure, in rheumatoid arthritis (*Letters*), **138:310, 311**  
 Deer antlers, bioelectric potentials in, **142:237**  
 De Quervain's disease, **143:165**  
 Deyerle fixation, in femoral neck fractures, **144:178**  
 Diabetes, foot lesions in, **142:110**  
 Diet. *See* Nutrition  
 Dilantin, osteomalacia from, **139:216**  
 Disk conditions  
   autoimmunity in degenerative disease, **142:215**  
   banded structure in nucleus pulposus, **139:259**  
   central disk heights, **139:21**  
   colchicine in damaged disk syndrome, **143:183**  
   diagnosis of infection with gallium-67, **144:293**  
   herniation, lumbar  
     lateral, extreme, **138:222**  
     simulation by tumors of pelvic girdle, **138:217**  
 Dislocation  
   of hip  
     and radiographic acetabular landmarks, **141:166**  
     traumatic, vascular and circulatory changes in, **140:255**  
   of knee. *See* Knee, recurrent dislocation of patella laterality of, related to handedness, **143:158**  
   metatarsophalangeal, irreducible, **145:224**  
   of radioulnar joint, distal, **144:154**  
   sacroiliac, bilateral, in adolescent, **143:191**  
   of shoulder  
     bilateral anterior, **140:21**  
     irreducible, **139:167**  
   sternoclavicular  
     computed tomography in, **140:12**  
     in infant, **139:68**  
     operative repair of, **140:17**  
     thoracolumbar fracture dislocations, treatment of, **142:168**  
 Distraction, leg lengthening by, and viscoelastic behavior of tissue, **139:102**  
 L-Dopa, and healing of fractures, **142:244**  
 Down's syndrome, atlanto-axial subluxation in, **140:66**
- E**
- Elbow  
   in anterior interosseous nerve entrapment, **142:176**  
   modified posterolateral approach to, **144:151**  
   ulnar nerve compression at, medial epicondylectomy in, **139:174**  
 Electric current  
   constant direct current affecting osseous defect, **142:219**  
   and healing of fractures, **145:239**  
   and healing of osteotomized radius, **145:245**  
   and spinal instrumentation in scoliosis, **139:28**  
   and osteogenesis, **141:266; 145:300**  
 Electrical potentials, in deer antlers, **142:237**  
 Electromyography, in sit-up exercises, **145:172**  
 Electron microscopy  
   of acid phosphatase in giant cell tumor of bone, **141:295**  
   of banded structures in nucleus pulposus, **139:259**  
   of bone lining cells  
     and effects of calcitonin, **139:250**  
     and effects of parathyroid hormone, **138:254**  
   of cartilage in connective tissue disorders, **143:251**  
   of collagen fibers in articular cartilage, **139:267**  
   of Morton's neuroma, **141:256; 142:73**  
 Elevation of limbs, and tissue pressure affecting muscle oxygenation, **144:311**  
 Embolism  
   fat, and prophylactic therapy, **143:211**  
   pulmonary  
     and hydroxychloroquine prophylaxis in hip surgery, **144:174**  
 Embolization, arterial, use in bone tumors of childhood, **139:133**  
 Ender nails, in trochanteric fractures of femur, **138:231; 142:262**  
 Epicondylectomy, medial, for ulnar nerve compression, **139:174**  
 Epilepsy, and osteomalacia from anticonvulsants, **139:216**  
 Epiphyseal osteochondroma, of anterior cruciate ligament, **139:86**  
 Erythromelalgia, **144:249**  
 Estrogen  
   and mechanical strength of growth plate, **145:264**  
   role in osteoporosis, **144:286**

Exercise

- sit-up, EMG recordings in, 145:172
- temporary, and joint changes during immobilization, 144:321

F

Familial conditions

- and cartilage ultrastructure in connective tissue disorders, 143:251
- congenital vertical talus, 139:128
- Mediterranean fever, 143:81
- osteochondritis dissecans of knee, 140:131
- perforating ulcers of foot, 140:189
- spondyloarthropathies, 143:10
- sympalangism, distal, 141:251
- trigger thumb, 143:167

Fasciotomy, in rattlesnake bites, 140:55

Fat embolism syndrome, prophylaxis of, 143:211

Fatigue fracture, of pubic bones, in obesity, 142:182

Femur

- Buck's traction in fractures of, 140:2
- bursal osteochondromatosis of, 144:269
- closed insertion of prebent Sampson rod, 138:238
- fetal anteversion as factor in osteoarthritis, 145:213
- fractures in gunshot wounds, 140:27
- fractures simulating infection in myelomeningocele, 144:255
- ipsilateral fracture of femur and tibia, 142:115
- Legg-Calvé-Perthes disease
  - synovial osteochondromatosis with, 145:179
  - treatment programs in, 139:70
- lysis of neck in hip arthroplasty, 145:208
- medullary nailing of, 138:51. *See also* Medullary nailing
- neck fractures
  - Deyerle fixation in, 144:178
  - internal fixation of, 141:199, 203
  - and osteoporosis of spine, pelvis and hand, 139:156
  - subcapital, effects of (*Letters*), 141:310
- non-union of, treatment of, 138:141
  - compression plate in, 138:154
  - Vidal-Adrey external fixation in, 140:122
- in osteoarthritis, and alkaline and acid phosphatase activity in subchondral bone, 140:85
- osteonecrosis of head, 140:273
  - alcohol-induced, 143:222
  - pathological changes in, 139:283
  - tissue biology of, 138:284
- patellofemoral disorders, 144:2
- patellofemoral pain, infrapatella strap in, 139:179
- shaft fractures
  - comminuted, 138:74
  - follow-up of plate fixation in, 138:62, 74
  - internal fixation of, 138:5

- and negative experiences with pins-in-plaster, 138:243
- and prophylaxis of fat embolism syndrome, 143:211

slipped capital epiphysis

- hormonal factors in, 145:264
- long-term results of treatment of, 141:176
- pinning *in situ*, 141:181

subtrochanteric fractures treated with Zickel nail, 141:213

supracondylar fractures of, internal fixation of, 138:9, 77

trochanteric fractures of

- compression screw in, 141:184
- Ender nails in, 138:231; 142:262
- in geriatric patients, 138:41, 141:188
- internal fixation of, 138:3, 30, 41

Vidal-Adrey external fixation of in infected non-union, 140:122 in open fracture, 140:111

Fetal alcohol syndrome, orthopedic aspects of, 139:58

Fibroblasts, in tissue culture, synovial fluid affecting, 138:279

Fibula

- bicycle spoke fracture of, 144:230
- cyst of, subchondral, 144:212
- fractures at distal tibiofibular syndesmosis, 143:138
- non-union of
  - infected, Vidal-Adrey external fixation in, 140:122
  - treatment of, 138:141
- transfer for congenital absence of tibia, 139:97

Finger joints, compression arthrodesis of, 145:193. *See also* Hand

Fixation of fractures

- external, Vidal-Adrey system in, 140:111, 122
- internal, 138:2
  - Deyerle method for femoral neck fractures, 144:178

Flatfoot development, and accessory navicular bone, 144:233

Foot. *See also* Hallux rigidus; Hallux valgus

- accessory navicular and flatfoot development, 144:233
- anatomy of forefoot, 142:10
- arthrodesis of first metatarsophalangeal joint, 142:48
- in bicycle spoke fracture, 144:230
- chevron osteotomy for hallux valgus, 142:44
- congenital vertical talus, 139:128
- dysvascular lesions of, 142:110
- evaluation of adult forefoot, 142:19
- Freiberg's infraction of, 142:93
- interdigital clavus, 142:103
- irreducible metatarsophalangeal dislocations, 145:224
- jogger's foot (*Letters*), 141:308
- metatarsus primus varus, 145:217
- Morton's metatarsalgia, 141:256; 142:4. *See also*

- metatarsalgia, Morton's  
 onychocryptosis, **142:96**  
 radiologic features in females, **145:217**  
 replantation of forefoot, **139:182**  
 rerupture of tendoachilles after nonsurgical treatment, **140:175**  
 silicone implant arthroplasty of great toe, **142:30**  
 ski boot compression syndrome, **140:109**  
 symposium on disorders of forefoot, **142:2**  
 toe function in walking, jogging and running, **142:24**  
 ulcers of  
   oxacillin in, and clostridial myonecrosis development, **138:250**  
   perforating, hereditary, **140:189**  
 Footprints, in management of clubfoot, **140:32**  
 Forearm. *See also* Radius; Ulna  
   non-union of fractures in, treatment of, **138:141**  
 Forefoot. *See* Foot  
 Fractures(s). *See also specific sites of fractures*  
   and closed insertion of prebent Sampson femoral rod, **138:238**  
   computerized tomography in, **139:147**  
   fatigue, of pubic bones, in obesity, **142:182**  
   in gunshot wounds of low velocity, **140:26**  
   healing of  
     biomechanical aspects of, **138:175**  
     calcitonin affecting, **141:303**  
     L-dopa affecting, **142:244**  
     electric current affecting, **142:219; 145:239**  
     with prebending of compression plates, **138:167**  
     and x-ray detection of osseous union, **142:234**  
   internal fixation of, **138:2**  
     aims of, **138:23**  
     evolution of concepts in, **138:26**  
   laterality of, related to handedness, **143:158**  
   medullary nailing in, **138:45,51**. *See also* Medullary nailing  
   non-union of  
     and compression plate for long bones, **138:154**  
     and internal fixation of long bones, **138:141**  
     and Vidal-Adrey external fixation in infections, **140:122**  
   oblique, and orientation of transfixation screws, **143:271**  
   open  
     internal fixation in, **138:20, 120, 132, 138**  
     and Mumford spike procedure in tubular bones, **140:92**  
     Vidal-Adrey external fixation in, **140:111**  
   pathologic  
     in cytomegalic inclusion disease, **144:280**  
     of hand, in Paget's disease, **143:168**  
     in hemophilia, **138:211**  
   and pseudarthrosis of forearm, with neurofibromatosis, **139:125**  
   Fracture-dislocations, thoracolumbar, treatment of, **142:168**  
 Freiberg's infraction, metatarsal, **142:93**  
 Fungus infections  
   coccidioidomycosis of spine, **140:78**  
   osteomyelitis in (*Letters*), **138:311**  
   osteomyelitis in heroin users, **144:243**  
 Fusion, lumbosacral, with spinous process as graft, **140:72**
- ## G
- Ganglion, in peroneus longus muscle, and peroneal nerve compression, **140:172**  
 Gas gangrene, after oxacillin in foot ulcers, **138:250**  
 Gentamicin, affecting shear and interface strengths of bone cement, **141:96**  
 Geriatric patients  
   osteoporosis of spine, pelvis and hand in patients with femoral neck fractures, **139:156**  
   treatment of hip fractures, **141:196**  
   trochanteric femoral fractures in, internal fixation of, **138:41; 141:188**  
 Giant cell tumor of bone, acid phosphatase localization in, **141:295**  
 Giliberty bipolar hip units, **141:169**  
 Glomus tumor, treatment with prostaglandin inhibition, **143:171**  
 Glucagon, role in osteoporosis, **144:289**  
 Glucocorticoids. *See* Corticosteroids  
 Glucose, hypertonic, in prophylaxis of fat embolism syndrome, **143:211**  
 Gluteal artery laceration, in iliac bone graft surgery, **140:204**  
 Gonarthrosis, knee prosthesis in, **145:126**  
 Grafts  
   allograft joint transplantation (*Letters*), **141:307, 308**  
   and bone inductive capacity of transplant materials, **140:208**  
   and bone peg fixation in osteochondritis dissecans of knee, **143:125**  
   of iliac bone, and gluteal artery laceration, **140:204**  
   muscle flap transposition for lower extremity defects, **143:200**  
   and spinous process use in lumbosacral fusion, **140:72**  
   tibial tubercle transfer in patellar dislocations, **144:43**  
   transfer of fibula for congenital absence of tibia, **139:97**  
 Growth hormone, role in osteoporosis, **144:289**  
 GUEPAR knee prosthesis  
   hinge type, **145:91**  
   results and late complications with, **140:145**



Gunshot wounds, low velocity, conservative treatment of, **140:26**

## H

Hallux rigidus, **142:57**

and arthrodesis of first metatarsophalangeal joint, **142:48**

simple operation for, **142:55**

Hallux valgus

and arthrodesis of first metatarsophalangeal joint, **142:48**

chevron osteotomy in, **142:44**

and forces under foot before and after surgery, **142:64**

Halofemoral traction, in thoracolumbar dislocations, **142:168**

Hand

bipartite trapezium with adduction contracture of thumb, **145:199**

compartment syndrome of interosseous muscles, **140:23**

compression arthrodesis of finger joints, **145:193**

distal symphalangism in, **141:251**

familial trigger thumb, **143:167**

fractures in gunshot wounds, **140:27**

glomus tumor treated with indomethacin, **143:171**

infection from *Acinetobacter calcoaceticus*, **140:184**

metacarpophalangeal arthroplasty with flexible silastic implants, **140:178**

osteoporosis of, in patients with femoral neck fractures, **139:156**

pathologic fractures in Paget's disease, **143:168**

Handedness, and laterality of fractures and dislocations, **143:158**

Harrington instrumentation

in scoliosis, results of, **144:128**

in thoracolumbar fracture dislocations, **142:168**

Hauser procedure, in recurrent patellar dislocation, **144:27**

late results of, **140:137**

Healing

of fractures. *See* Fracture(s), healing of

of osteochondral defects, collagen sponge implants affecting, **144:326**

of osteotomized radius, magnetic fields affecting, **145:245**

Hemangioma, and leg length discrepancy, **144:210**

Hemarthrosis, in hemophilia, **138:201**

Hemihypertrophy, congenital, **144:198**

Hemophilia, orthopedic problems in, **138:197**

Hemorrhage into muscle, in hemophilia, **138:209**

Heparin, low-dose, with warfarin, after hip replacement, **141:134**

Hereditary disorders. *See* Familial conditions

Herniation of lumbar disks

lateral, extreme, **138:222**

simulation by tumors of pelvic girdle, **138:217**

Heroin users

compartment syndrome of interosseous muscles of hand, **140:23**

skeletal infections in, **144:238**

Hip

derangement of, and muscle shortening in cerebral palsy, **144:186**

disarticulation of, and preservation of functional above-knee stump, **141:217**

disease in Mseleni, **141:223**

dislocation of

and radiographic acetabular landmarks, **141:166**

traumatic, vascular and circulatory changes in, **140:255**

fractures in senile patients, **141:196**

intertrochanteric fracture of. *See* Femur, trochanteric fractures

osteoarthritis of

and alkaline and acid phosphatase activity in subchondral bone, **140:85**

fetal femoral anteversion as factor in, **145:213**

replacement of

and antibiotics in subacute sepsis, **141:143**

and determination of successful surgery, **141:44**

and femoral reaming with cement implantation, **141:74**

and femoral shaft perforation, **141:158**

and fracture of Charnley prosthesis, **141:29**

and gentamicin affecting shear and interface strengths of cement, **141:96**

Gilbert bipolar units in, **141:169**

and hydroxychloroquine prophylaxis of pulmonary embolism, **144:174**

and intramedullary pressure patterns, **145:183**

after infection in opposite hip, **141:138**

and long-term follow-up of Charnley arthroplasty, **141:28**

and loosening of stem prosthesis, **141:17, 66**

and lysis of femoral neck, **145:208**

madrepore implant for, uncemented, **141:2**

and management of fractured stem, **141:71**

and mechanical properties of femoral stems, **141:55**

and mechanisms of arterial injury, **141:122**

and methylmethacrylate metabolism in man, **141:90**

and prophylactic anticoagulation, **141:134**

risk factor assessment in, **141:50**

titanium alloy prosthesis in, **144:166**

trochanteric osteotomy in, **141:102, 111**

and wear of acetabular components, **145:277**

- septic arthritis of, in children, **139:81**  
 surgery in hemophilia, **138:207**  
 synovial chondromatosis with Turner's syndrome, **144:183**
- Historical aspects, of orthopedic practice, **139:2**
- HLA-B27 antigen, in spondyloarthropathies, **143:8, 11, 15**
- Hormonal factors  
   in mechanical strength of growth plate, **145:264**  
   in metabolism of skeletal tissue in culture, **142:196**  
   in osteogenic sarcoma growth, **140:247**  
   in osteoporosis, **144:284**
- Humerus  
   bilateral fracture of surgical neck in osteomalacia, **143:148**  
   fracture in gunshot wounds, **140:27**  
   medial epicondylectomy for ulnar nerve compression, **139:174**  
   non-union of, treatment of, **138:141**  
     compression plate in, **138:154**  
     Vidal-Adrey external fixation in infections, **140:122**  
   open fracture of, Vidal-Adrey external fixation in, **140:111**
- Hurler's syndrome  
   cartilage ultrastructure in, **143:251**  
   plasma infusions or leukocyte transfusions in, **140:194**
- Hydroxychloroquine, for pulmonary embolism prevention in hip surgery, **144:174**
- 5-Hydroxyindole acetic acid, in synovial fluid and plasma, in joint diseases, **139:232**
- Hyperostosis, infantile cortical, **144:276**
- Hyperparathyroidism, vitamin D metabolism in, **139:215**
- Hypertrophy, and leg length discrepancy, **144:198**
- Hypoparathyroidism, vitamin D metabolism in, **139:214**
- Hysteria, and low back pain, **140:42; 145:158**
- I**
- $\alpha$ -L-Iduronidase, activity in leukocytes and plasma, after treatment of mucopolysaccharidosis, **140:194**
- Iliac bone graft surgery, gluteal artery laceration in, **140:204**
- Immobilization, and joint changes after temporary exercise, **144:321**
- Indomethacin  
   in glomus tumor, **143:171**  
   in spondyloarthropathies, **143:85**
- Induction of bone, in soft tissue, control of, **143:245**
- Inductive capacity, of bone transplant materials, **140:208**
- Infections. *See also* Septic arthritis
- antibiotics in subacute sepsis of hip, **141:143**  
 with GUEPAR knee prosthesis, **140:145**  
 of hand, from *Acinetobacter calcoaceticus*, **140:184**  
 hip replacement following infection in opposite hip, **141:138**  
*Mycobacterium abscessus*, in knee joint, **140:162**  
 mycotic. *See* Fungus infections  
   in myelomeningocele, simulation by lower extremity fractures, **144:255**  
   in non-union of fractures, Vidal-Adrey external fixation in, **140:122**  
   and penetration of gown material by organisms, **141:237**  
   routes of, studies with tracer particles, **129:150**  
   septicemia after sinogram, **145:187**  
   skeletal, in heroin users, **144:238**
- Infrapatellar tendon, bilateral traumatic rupture of, **142:131**
- Insulin, role in osteoporosis, **144:289**
- Interosseous muscles of hand, compartment syndrome of, **140:23**
- Interosseous nerve, anterior, entrapment of, **142:176**
- Intestines, vitamin D action on, **129:211**
- J**
- Jogger's foot (*Letters*), **141:308**
- Jogging, function of toes in, **142:24**
- K**
- Kidney  
   failure of, and osteodystrophy, **139:222**  
   renal cell carcinoma  
     metastasis to skeletal muscle, **145:227**  
     regression of osseous metastasis in **138:246**  
     vitamin D action on, **139:212**
- Kiloh-Nevin syndrome, **142:176**
- Knee  
   acute dislocation of patella, in children, **139:88**  
   arthrodesis in hemophilia, **138:206**  
   arthroscopic examination of, **144:45**  
   bilateral traumatic rupture of infrapatellar tendon, **142:131**  
   biomechanics of patellofemoral joint, **144:9, 51, 70**  
   chondromalacia of, **144:22, 55. See also** Chondromalacia patellae  
   dorsal defect of patella with cartilaginous involvement, **143:131**  
   epiphyseal osteochondroma of anterior cruciate ligament, **139:86**  
   extension contracture in meningomyelocele, **144:260**  
   extensor reconstruction of, **144:36**  
   peroneal nerve paralysis from, **140:169**



floating, in ipsilateral fractures of femur and tibia, 142:115  
infections in heroin users, 144:242  
injuries in women, 143:120  
instability of  
  chronic anteromedial, 142:123  
  experimental, 140:262  
lipids in joint tissues, 143:260  
meniscal ossicles, 144:272  
*Mycobacterium abscessus* infection of, 140:162  
osteoarthritis, patellofemoral, 144:22, 70  
osteochondritis dissecans  
  bone peg fixation in, 143:125  
  familial, 140:131  
Paget's disease of patella, 142:139  
pain in  
  chondromalacia, 144:64  
  infrapatellar strap in, 139:179  
  and rational approach to treatment, 144:107  
  Z-plasty retinacular release in, 144:110  
patellectomy, 144:84, 103  
patellofemoral disorders, 144:2  
popliteal cysts, 144:215  
posterior cruciate ligament injuries, 143:107  
radiology of patellofemoral joint, 144:56  
  tangential studies in, 144:16  
reconstruction with cruciate ligament stents, 143:90  
recurrent dislocation of patella  
  extensor mechanism reconstruction in, 144:36  
  Hauser procedure in, 140:137, 144:27  
  Roux-Goldthwait procedure in, 144:4, 27  
  semitendinosus tenodesis in, 144:31  
  tibial tubercle transfer in, 144:43  
regeneration of meniscus after synovectomy, in rabbits, 141:287  
repair of torn anterior cruciate ligament, 143:97  
replacement of, 144:91, 98, 103; 145:2  
  anatomic arthroplasty in, 145:85  
  bilateral, under one anesthetic, 140:153  
  clinical analysis of polycentric and geometric arthroplasties, 145:37  
  and development of arthroplasty procedures, 145:101  
  experience in Imperial College and London Hospital, 145:47  
  experience in Robert Breck Brigham Hospital, 145:78  
  in gonarthrosis, 145:126  
  GUEPAR arthroplasty results and late complications, 140:145  
  GUEPAR hinge prosthesis in, 145:91  
  Kodama-Yamamoto prosthesis in, 145:60  
  madreporic prosthesis in, 145:94  
  and polycentric arthroplasty, 145:23, 37  
  and predictive range of motion, 143:115  
  in rheumatoid arthritis, 145:117  
  and spherocentric arthroplasty, 145:110  
  total condylar prosthesis, 145:68

  and two-part arthroplasty, 145:  
  synovial shelf syndrome, 142:135  
  tourniquet time affecting quadriceps function, 143:194  
  varus deformity of, and compression osteotomy of tibia, 140:103  
  Z-plasty lateral retinacular release in compression syndrome, 144:110  
Kodama-Yamamoto knee prosthesis, 145:60  
Küntscher technique, for medullary nailing of femur, 138:56

## L

Leg length discrepancy, with hypertrophy, 144:198  
Leg lengthening  
  in chondroplastic children, 144:194  
  by distraction, and viscoelastic behavior of tissue, 139:102  
  three methods in poliomyelitis, 145:150  
Legg-Calvé-Perthes disease  
  synovial osteochondromatosis with, 145:179  
  treatment programs in, 139:70  
Leukocytes, transfusions in mucopolysaccharidosis, 140:194  
Ligament  
  cruciate. *See* Cruciate ligament  
  healing of, synovial fluid affecting, 138:279  
  injury affecting ankle movement, 140:266  
  posterior longitudinal, or cervical spine, ossification of, 140:58  
Lipid, in knee joint tissues, 143:260  
Low back pain  
  and hysterical personality, 140:42; 145:158  
  and lumbar disk herniation  
    lateral, extreme, 138:22  
    simulation by tumors of pelvic girdle, 138:217  
Lumbar disk herniation  
  lateral, extreme, 138:222  
  simulation by tumors of pelvic girdle, 138:217  
Lumbosacral fusion, with spinous process as graft, 140:72  
Lymphangioma, and leg length discrepancy, 144:209

## M

Madreporic prostheses  
  for hip, 141:2  
  for knee, 145:94  
Magnetic fields, and healing of osteotomized radius, 145:245  
Marfan syndrome, cartilage ultrastructure in, 143:251  
Mediterranean fever, familial, 143:81  
Medullary nailing, in fixation of fractures, 138:45, 51  
  and closed insertion of prebent Sampson femoral rod, 138:238

- Ender nails in trochanteric fractures of femur, **138:231; 142:262**
- Küntschner technique with reaming, **138:56**
- Meningomyelocele. *See* Myelomeningocele
- Menisci, ossicles in, **144:272**. *See also* Knee
- Menkes kinky hair syndrome, cartilage ultrastructure in, **143:251**
- Metacarpophalangeal arthroplasty, with flexible silastic implants, **140:178**
- Metatarsalgia, Morton's. *See* Morton's metatarsalgia
- Metatarsophalangeal dislocation, irreducible, **145:224**
- Metatarsus primus varus, **145:217**
- Microspheres  
albumin, in studies of routes of infection, **139:150**  
radioactive, in bone blood flow measurements, **138:263**
- Mima polymorpha*, hand infection from, **140:184**
- Mineral content of bone, after tibia shaft fractures, **144:226**
- Mobilization, early, in Legg-Calvé-Perthes disease, **139:70**
- Monoamine oxidase, activity in joint diseases, **139:232**
- Morton's metatarsalgia, **141:256; 142:4**  
and nerve entrapment syndrome, **142:90**  
pathologic changes in, **142:73**  
in rheumatoid arthritis, **142:85**
- Mseleni hip disease, **141:223**
- Mucopolysaccharidoses  
cartilage ultrastructure in, **143:251**  
plasma infusions or leukocyte transfusions in, **140:194**
- Mumford spike procedure, in open fractures of tubular bones, **140:92**
- Muscle  
clostridial necrosis after oxacillin in foot ulcers, **138:250**  
flap transpositions for lower extremity defects, **143:200**  
forces in thoracic spine, **139:28**  
hemorrhage into, in hemophilia, **138:209**  
interosseous, of hand, compartment syndrome of, **140:23**  
myositis ossificans progressiva, with scoliosis, **139:49**  
oxygenation affected by tissue pressure, **144:311**  
peroneus longus replacement by ganglion, **140:172**  
postural activity of, **145:4**  
quadriceps function affected by tourniquet time, **143:194**  
renal cell carcinoma metastasis to, **145:227**  
shortening of, and hip derangement in cerebral palsy, **144:186**  
spastic, pathology in cerebral palsy, **142:223**  
tension, evaluation of by measuring intramuscular pressure, **145:293**
- Mycobacterium abscessus* infection, of knee joint,

- 140:162**
- Myelomeningocele  
extension contracture of knee in, **144:260**  
infection in, simulated by lower extremity fractures, **144:255**
- Myonecrosis, clostridial, after oxacillin in foot ulcers, **138:250**
- Myositis ossificans progressiva, with scoliosis, **139:49**

## N

- Nailing, *See* Medullary nailing
- Navicular bone, accessory, and flatfoot development, **144:233**
- Necrosis  
of bone. *See* Osteonecrosis  
clostridial myonecrosis after oxacillin in foot ulcers, **138:250**
- Nerve  
anterior interosseous, entrapment of, **142:176**  
peroneal. *See* Peroneal nerve  
postural activity of, **145:4**  
ulnar, compression at elbow, medial epicondylectomy in, **139:174**
- Neurofibromatosis  
with leg length discrepancy, **144:207**  
with pseudarthrosis of forearm bones, **139:125**
- Neurologic dysfunction, and surgical morbidity, **145:189**
- Neuroma  
Morton's. *See* Morton's metatarsalgia  
paramedian, presenting as ganglion, **140:45**
- Non-union of fractures. *See* Fracture(s), non-union of
- Nucleus pulposus, banded structures in, **139:259**
- Nutrition  
calcium requirements and calcium therapy, **140:216**  
commercial diets affecting orthopedic experiments, **138:271**  
and vitamin D metabolism, **139:206**

## O

- Obesity, and fatigue fracture of pubic bones, **142:182**
- Onychocryptosis, **142:96**
- Open fractures. *See* Fracture(s), open
- Orthosis, thoracic suspension, **139:33**
- Ossicles, meniscal, **144:272**
- Ossification, of posterior longitudinal ligament of cervical spine, **140:58**
- Osteoarthritis  
and alkaline and acid phosphatase activity in subchondral bone from hips, **140:85**  
and articular cartilage in experimental knee instability, **140:262**

- patellofemoral, 144:22, 70
- and persistent fetal femoral anteversion, 145:213
- serotonin metabolism in, 139:232
- Osteochondral defects, healing affected by collagen sponge implants, 144:326
- Osteochondritis dissecans
  - of knee
    - bone peg fixation in, 143:125
    - familial, 140:131
  - of talus, 144:264
- Osteochondroma, epiphyseal, of anterior cruciate ligament, 139:86
- Osteochondromatosis
  - bursal, 144:269
  - synovial
    - with Legg-Calvé-Perthes disease, 145:179
    - with Turner's syndrome, 144:183
- Osteochondrosis, and Freiberg's infraction, 142:93
- Osteoclasts, origin of, 145:252
- Osteodystrophy, renal, vitamin D metabolism in, 139:222
- Osteogenesis, electrically stimulated, 141:266; 145:300
- Osteogenesis imperfecta
  - scoliosis in, 145:163
  - spine deformity in, 139:40
  - spondylolisthesis from, 139:164
- Osteoma, osteoid
  - of clavicle, 143:162
  - transplanted into athymic mice, 141:275
- Osteomalacia
  - from anticonvulsants, 139:216
  - and bilateral humeral neck fracture, 143:148
  - in femoral neck fractures (*Letters*), 144:337
  - tumor-induced, 139:217
  - vitamin D metabolism in, 139:215
- Osteomyelitis
  - from *Allescheria boydii* (*Letters*), 138:311
  - anaerobic, in childhood, 145:230
  - from *Arizona hinshawii*, 129:110
  - chronic, hyperbaric oxygen in, 144:121
  - in heroin users, 144:238
  - variolosa, osseous deformity from, 143:155
- Osteonecrosis of femoral head, 140:273
  - alcohol-induced, 143:222
  - pathological changes in, 139:283
  - tissue biology of, 138:284
- Osteoporosis
  - hormonal factors in, 144:284
  - of spine, pelvis and hand in patients with femoral neck fractures, 139:156
  - treatment by manipulation of bone cell populations, 143:227
- Osteosarcoma
  - hamster model of, 144:305
  - metabolic properties of cells in, 140:247
  - with Paget's disease of spine, 141:260
  - and preservation of functional above-knee stump after hip disarticulation, 141:217

- Osteotomy
  - chevron, in hallux valgus, 142:44
  - compression, of tibia, 140:103
  - high tibial, and radionuclide joint imaging, 144:220
  - of radius, and magnetic fields affecting healing, 145:245
  - trochanteric, in hip replacement, 141:102, 111
  - wedge technique in hallux rigidus, 142:55
- Oxacillin, in foot ulcers, and clostridial myonecrosis development, 138:250
- Oxygen, hyperbaric, in chronic osteomyelitis, 144:121
- Oxygenation, muscle, tissue pressure affecting, 144:311

## P

- Paget's disease
  - of patella, 142:139
  - and pathologic fractures of hand, 143:168
  - of spine, osteosarcoma with, 141:260
- Pain
  - in anterior interosseous nerve entrapment, 142:176
  - in erythromelalgia, 144:249
  - in Morton's metatarsalgia, 142:4
  - patellofemoral. *See* Knee, pain in
  - in scoliosis, advances in treatment of, 145:240
- Palsy
  - cerebral. *See* Cerebral palsy
  - of peroneal nerve, after extensor reconstruction of knee, 140:169
- Parathyroid gland, vitamin D action on, 139:212
- Parathyroid hormone
  - cellular effect of, 138:254
  - effects on skeletal tissue in culture, 142:196
  - role in osteoporosis, 144:285
  - and vitamin D metabolism, 139:208
- Patella. *See* Knee
- Pediatric orthopedics
  - acute dislocation of patella, 139:88
  - adjuvant arterial embolization in bone tumors, 139:133
  - axial loading affecting healthy adolescent spines, 139:17
  - clavicular pseudarthrosis, congenital, 139:64
  - Clostridium perfringens* septic arthritis, 139:92
  - cortical hyperostosis, infantile, 144:276
  - cytomegalic inclusion disease with pathologic fractures, 144:280
  - epiphyseal osteochondroma of anterior cruciate ligament, 139:86
  - familial occurrence of congenital vertical talus, 139:128
  - fetal alcohol syndrome, 139:58
  - fibular transfer for congenital absence of tibia, 139:97
  - leg length discrepancy with hypertrophy, 144:198
  - leg lengthening in achondroplasia, 144:194

- Legg-Calvé-Perthes disease, **139:70**  
 osteochondritis dissecans of knee, familial, **140:131**  
 osteomyelitis  
   anaerobic microorganisms in, **145:230**  
   from *Arizona hinshawii*, **139:110**  
 pseudarthrosis of forearm, with neurofibromatosis, **139:125**  
 radioulnar movements after fractures of forearm, **139:114**  
 sacral agenesis, **139:52**, **145:168**  
 sacroiliac dislocations, bilateral, in adolescence, **143:191**  
 scoliosis. *See* Scoliosis  
 septic arthritis of hip, **139:81**  
 spondyloarthropathies, seronegative, **143:76**  
 sternoclavicular joint dislocation in infant, **139:68**  
 thoracic suspension orthosis, **139:33**  
 traumatic bowing of forearm, **139:121**
- Pelvis**  
 girdle tumors simulating herniated lumbar disks, **138:217**  
 injury of, and formation of bone and synovial joint, **140:80**  
 open fracture of, Vidal-Adrey external fixation in, **140:111**  
 osteoporosis of, in patients with femoral neck fractures, **139:156**  
 radiographic acetabular landmarks in, **141:166**
- Peroneal nerve**  
 compression by ganglion, **140:172**  
 compression by ski boots, **140:109**  
 paralysis after extensor reconstruction of knee, **140:169**
- Peroneus longus muscle**, replacement by ganglion, **140:172**
- Phenobarbital**, osteomalacia from, **139:216**  
**Phenylbutazone**, in spondyloarthropathies, **143:85**  
**Phosphate**, and vitamin D metabolism, **139:208**  
**Physiotherapy**, in spondyloarthropathies, **143:86**  
**Pin plate fixation**, Deyerle method for femoral neck fractures, **144:178**  
**Pinning techniques**, in slipped capital femoral epiphysis, **141:181**  
**Plasma infusions**, in mucopolysaccharidoses, **140:194**  
**Plaster casts**. *See* Casts  
**Plate fixation**  
   and analysis of fracture healing with prebending of plates, **138:167**  
   in femoral shaft fractures, **138:62**, **74**  
   in pseudarthroses of long bones, **138:154**  
**Poliomyelitis**, tibial lengthenings in, **145:150**  
**Popliteal cysts**, **144:215**  
**Postural activity**, of muscle and nerve, **145:4**  
**Pressure**  
   intramedullary patterns of, **145:183**  
   intramuscular, during walking, **145:292**  
   tissue, and muscle oxygenation, **144:311**  
**Primitive man**, orthopedic care for, **139:2**  
**Progesterone**, and mechanical strength of growth plate, **145:264**  
**Prophylaxis**  
   and anticoagulants in hip replacement arthroplasty, **141:134**  
   and fat embolism prevention, **143:211**  
   hydroxychloroquine for pulmonary embolism prevention in hip surgery, **144:174**  
**Prostaglandin inhibition**, in treatment of glomus tumor, **143:171**  
**Prostheses**  
   ankle joint, **142:141**  
   Austin-Moore, for preservation of functional above-knee stump, **141:217**  
   constrained, for shoulder joint, **144:135**  
   hip. *See* Hip, replacement of  
   knee. *See* Knee, replacement of  
   metacarpophalangeal, with flexible silastic implants, **140:178**  
   and rehabilitation of above-knee amputee with rigid dressings, **143:133**  
   silicone implant arthroplasty of great toe, **142:30**  
**Proteoglycans**, cartilage, **139:190**  
**Protrusion acetabuli**, idiopathic, **138:228**  
**Pseudarthrosis**  
   of clavicle, congenital, surgery in, **139:64**  
   of forearm bones, with neurofibromatosis, **139:125**  
   infected, Vidal-Adrey external fixation in, **140:122**  
   of long bones, compression treatment of, **138:154**  
   of tibial plateau fracture, **145:136**  
**Pseudohypoparathyroidism**, vitamin D metabolism in, **139:213**  
**Pseudotumors**, in hemophilia, **138:213**  
**Psoriatic arthritis**, **143:8**  
   in childhood, **143:81**  
   clinical spectrum of, **143:66**  
   epidemiology of, **143:22**  
   radiology of, **143:43**  
   therapy in, **143:87**  
**Psychiatric patients**, senile, treatment of hip fractures in, **141:196**  
**Psychological factors**, in low back pain, **140:42**, **145:158**  
**Pubic bones**, fatigue fracture of, in obesity, **142:182**  
**Pulverization**, and bone matrix morphogenetic activity, **141:281**
- Q**
- Quadriceps function**, postoperative, tourniquet time affecting, **143:194**

## R

- Radicular neuropathy, hereditary sensory, **140:189**  
Radioactive microspheres, in bone blood flow measurements, **138:263**  
Radiology  
  and acetabular landmarks, **141:166**  
  and detection of osseous union in fractures, **142:234**  
  of female foot, **145:217**  
  of patellofemoral joint, **144:56**  
    tangential visualization in, **144:16**  
  and septic arthritis after arthrography, **145:237**  
  and septicemia after sinogram, **145:187**  
  of seronegative spondyloarthropathies, **143:38**  
Radionuclide imaging  
  gallium-67 in diagnosis of disk space infection, **144:293**  
  in high tibial osteotomy, **144:220**  
  in seronegative spondyloarthropathies, **143:46**  
Radiotherapy, in spondyloarthropathies, **143:85**  
Radioulnar joint  
  distal, dislocation of, **144:154**  
  fracture of, and range of movements in childhood, **139:114**  
  proximal, modified posterolateral approach to, **144:151**  
Radius  
  fracture of, and range of movements in childhood, **139:114**  
  non-union of, treatment of, **138:141**  
    compression plate in, **138:154**  
    and Vidal-Adrey external fixation in infection, **140:122**  
  open fracture of, Vidal-Adrey external fixation in, **140:111**  
  osteotomy of, and magnetic fields affecting healing, **145:245**  
  pseudarthrosis of, with neurofibromatosis, **139:125**  
  styloid pain in De Quervain's disease, **143:165**  
  traumatic bowing of, in children, **139:121**  
Rattlesnake bites, treatment of **140:50**  
Regeneration of meniscus, after synovectomy in rabbits, **141:287**  
Reiter's syndrome, **143:8**  
  in childhood, **143:80**  
  clinical spectrum of, **143:59**  
  epidemiology of, **143:20**  
  radiology of, **143:43**  
Renal cell carcinoma  
  metastasis to skeletal muscle, **145:227**  
  regression of osseous metastasis in, **138:246**  
Replantation, of forefoot, **139:182**  
Retinaculum, lateral patellar, Z-plasty release in compression syndrome, **144:110**  
Rheumatic diseases, symposium on seronegative

spondyloarthropathies, **143:2**

- Rheumatoid arthritis  
  bioassay values compared to clinical status, **144:299**  
  compared to spondyloarthropathies, **143:8**  
  Darrach procedure in (*Letters*), **138:310, 311**  
  juvenile, **143:76**  
  knee prosthesis in, **145:117**  
  Morton's metatarsalgia in, **142:85**  
  serotonin metabolism in, **139:232**  
  wrist surgery in, **142:159**  
Rickets, vitamin D metabolism in, **139:215**  
Rotation  
  ankle, ligamentous injury affecting, **140:266**  
  successive intervertebral measurements of, **139:22**  
Roux-Goldthwaite procedure, in recurrent patellar dislocation, **144:4, 27**  
Running, function of toes in, **142:24**  
Rupture of tendons  
  infrapatellar, bilateral traumatic, **142:131**  
  rerupture of tendoachilles after nonsurgical treatment, **140:175**

## S

- Sacral agenesis, **139:52**  
  anomalies with, **145:168**  
Sacroiliac joint  
  bilateral dislocations in adolescence, **143:191**  
  infection in heroin users, **144:242**  
Sacroiliitis, in spondyloarthropathies, **143:8**  
Salmonella arthritis, in childhood, **143:81**  
Sampson femoral rod, prebent, closed insertion of, **138:238**  
Sanfilippo syndrome, cartilage ultrastructure in, **143:251**  
Sarcoma  
  osteogenic. *See* Osteosarcoma  
  of pelvic girdle, simulating herniated lumbar disks, **138:217**  
  synovial, early clinical picture of, **142:185**  
Scanning of bone. *See* Radionuclide imaging  
Scaphoid bone, accessory, and flatfoot development, **144:233**  
Scheie syndrome, plasma infusions or leukocyte transfusions in, **140:194**  
Scoliosis  
  and banded structures in nucleus pulposus, **139:259**  
  congenital, operative treatment of, **143:174**  
  Harrington instrumentation in, results of, **144:128**  
  and muscle forces in thoracic spine, **139:28**  
  myositis ossificans progressiva with, **139:49**  
  in osteogenesis imperfecta, **139:40; 145:163**  
Screws, orientation across oblique fractures, **143:271**  
Semitendinosus tenodesis, in recurrent dislocation of patella, **144:31**

- Septic arthritis  
   from *Bacillus cereus*, after arthrography, 145:237  
   from *Clostridium perfringens*, 139:92  
   in heroin users, 144:238  
   of hip  
     in children, 139:81
- Septicemia, after sinogram, 145:187
- Serotonin, metabolism in joint diseases, 139:232
- Sex hormones, and mechanical strength of growth plate, 145:264
- Shigella arthritis, in childhood, 143:81
- Shoulder  
   arthrodesis of, posterior approach in, 139:169  
   constrained total replacement of, 144:135  
   dislocations of  
     bilateral anterior, 140:21  
     irreducible, 139:167  
   synovial cyst in, with vascular compromise, 143:151
- Silastic implants, flexible, metacarpophalangeal, 140:178
- Silicone implant arthroplasty, of great toe, 142:30
- Silver salt additive, in acrylic bone cement, 143:266
- Sinogram, septicemia after, 145:187
- Sit-up exercises, electromyography in, 145:172
- Ski boots, compression syndrome from, 140:109
- Smallpox, osteomyelitis in, osseous deformity from, 143:155
- Snake bites, treatment of, 140:50
- Soft tissue  
   bone induction in, 143:245  
   muscle flap transpositions for lower extremity defects, 143:200
- Spastic muscle, pathology in cerebral palsy, 142:223
- Spine  
   axial loading affecting, in healthy adolescents, 139:17  
   cervical. *See* Cervical spine  
   coccioidomycosis of, 140:78  
   computerized tomography of, 139:147  
   deformity in osteogenesis imperfecta, 139:40  
   disk pathology. *See* Disk conditions  
   lumbosacral fusion, with spinous process as graft, 140:72  
   osteomyelitis in heroin users, 144:241  
   osteoporosis of, in patients with femoral neck fractures, 139:156  
   Paget's disease of, osteosarcoma with, 141:260  
   sacral agenesis, 139:52; 145:168  
   scoliosis of. *See* Scoliosis  
   spondylolisthesis from osteogenesis imperfecta, 139:164  
   successive intervertebral rotation measurements, 139:22  
   thoracic, muscle forces in, 139:28  
   thoracic suspension orthosis, 139:33  
   thoracolumbar fracture dislocations, 142:168
- Spinous process, as graft in lumbosacral fusion, 140:72
- Spondylitis, ankylosing, 143:8  
   articular pathology of, 143:30  
   childhood onset of, 143:77  
   clinical spectrum of, 143:53  
   description by Bechterew, 143:4  
   epidemiology of, 143:15  
   radiology of, 143:40  
   therapy in, 143:84
- Spondyloarthropathies, seronegative, 143:2  
   in childhood, 143:76  
   epidemiology of, 143:15  
   and HLA-B27 antigen, 143:8, 11, 15  
   radiology of, 143:38  
   radionuclide joint imaging in, 143:46  
   and stiffening of spine in flexion, 143:4  
   therapy of, 143:84  
   unifying concept for, 143:8
- Spondylolisthesis, from osteogenesis imperfecta, 139:164
- Spongialization, in patellar disease, 144:74
- Sports medicine opportunity (*Letters*), 142:262
- Sternoarticular infections, in heroin users, 144:242
- Sternoclavicular joint  
   dislocations of  
     computed tomography in, 140:12  
     in infants, 139:68  
     operative repair of, 140:17  
   internal derangement of, 141:247
- Steroid hormones, role in osteoporosis, 144:286
- Still's disease, 143:8
- Subluxation  
   atlanto-axial, in Down's syndrome, 140:66  
   of patella. *See* Knee, recurrent dislocations
- Supracondylar fractures of femur, internal fixation of, 138:9, 77
- Surgery  
   arthrodesis. *See* Arthrodesis  
   arthroplasties. *See* Prostheses  
   computerized tomography in, 139:142  
   in congenital pseudarthrosis of clavicle, 139:64  
   in depressed lateral condylar fractures of tibia, 140:96  
   and embolization technique in bone tumors of childhood, 139:133  
   fibular transfer for congenital absence of tibia, 139:97  
   in foot conditions. *See* Foot  
   gluteal artery laceration in iliac bone graft surgery, 140:204  
   Hauser procedure in recurrent dislocation of patella, 140:137; 144:27  
   in hemophilia, 138:204  
   of hip joint, 141:2. *See also* Hip  
   historical aspects of, 139:2  
   knee replacement. *See* Knee, replacement of



- leg lengthening. *See* Leg lengthening procedures in Legg-Calvé-Perthes disease, compared to conservative treatment, **139:70**
- lumbosacral fusion with spinous process as graft, **140:72**
- medial epicondylectomy for ulnar nerve compression, **139:174**
- and morbidity in neurologic dysfunctions, **145:189**
- in ossification of posterior longitudinal ligament of cervical spine, **140:58**
- osteotomy. *See* Osteotomy
- and penetration of gown material by organisms, **141:237**
- and peroneal nerve palsy after extensor reconstruction of knee, **140:169**
- in rattlesnake bites, **140:55**
- in rerupture of tendoachilles after nonsurgical treatment, **140:175**
- in rheumatoid arthritis (*Letters*), **138:310, 311**
- and routes of infection, **139:150**
- in scoliosis
- congenital, **143:174**
- in spine deformity in osteogenesis imperfecta, **139:40**
- in spondyloarthropathies, **143:86**
- in sternoclavicular dislocation, **140:17**
- tourniquet time affecting quadriceps function, **143:194**
- in Vidal-Adrey external fixation system, **140:111, 122**
- of wrist, in rheumatoid arthritis, **142:159**
- zigzag incisions for improved exposure and scarring, **145:202**
- Suspension orthosis, thoracic, **139:33**
- Symphalangism, distal, **141:251**
- Synovectomy, and regeneration of meniscus in rabbits, **141:287**
- Synovial cyst of shoulder, with vascular compromise, **143:151**
- Synovial fluid
- affecting fibroblasts in tissue culture, **138:279**
- bioassay in rheumatoid arthritis, compared to clinical status, **144:299**
- serotonin enzymic activities in joint diseases, **139:232**
- Synovial osteochondromatosis
- with Legg-Calvé-Perthes disease, **145:179**
- with Turner's syndrome, **144:183**
- Synovial shelf syndrome, in knee, **142:135**
- Synovioma, early clinical picture of, **142:185**

## T

- Talipes equinovarus, footprints in management of, **140:32**
- Talus conditions. *See* Ankle
- Temperature

- barium sulfate affecting polymerization temperature of Surgical Simplex P, **145:287**
- measurements with cement fixation in cervical spine, **139:276**
- Tendon
- achilles, rerupture after nonsurgical treatment, **140:175**
- infrapatellar, bilateral traumatic rupture of, **142:131**
- Tenodesis, semitendinosus, in recurrent dislocation of patella, **144:31**
- Testosterone, role in osteoporosis, **144:286**
- Tetracycline, use as vital stain, **140:240**
- Thigh. *See* Femur
- Thoracic dysplasia, asphyxiating, cartilage ultrastructure in, **143:251**
- Thoracic spine, muscle forces in, **139:28**
- Thoracic suspension orthosis, **139:33**
- Thoracolumbar spine
- osteomyelitis in heroin users, **144:241**
- treatment of fracture-dislocations, **142:168**
- Thrombophlebitis, simulation by popliteal cyst, **144:215**
- Thrombosis, venous
- coagulolysis assay in detection of, **142:190**
- Thumb, adduction contracture with bipartite trapezium, **145:199**
- Thyroid hormones, role in osteoporosis, **144:287**
- Tibia
- avulsion fracture of attachment to posterior cruciate ligament, **143:107**
- bicycle spoke fracture of, **144:230**
- compression osteotomy of, **140:103**
- condylar fractures, **145:136**
- depressed lateral, **140:96**
- congenital absence of, fibular transfer for, **139:97**
- distal intra-articular fractures of, internal fixation of, **138:17, 103**
- fractures simulating infection in myelomeningocele, **144:255**
- high osteotomy of, and radionuclide joint imaging, **144:220**
- ipsilateral fracture of femur and tibia, **142:115**
- medullary nailing of, **138:52**
- non-union of, treatment of, **138:141**
- compression plate in, **138:154**
- and Vidal-Adrey external fixation in infection, **140:122**
- open fracture of
- Mumford spike procedure in, **140:92**
- Vidal-Adrey external fixation in, **140:111**
- plateau fractures
- internal fixation of, **138:12, 84, 94**
- pseudarthrosis of, **145:136**
- proximal, fractures of, **145:136**
- shaft fractures of
- and bone mineral content changes, **144:226**

- and prophylaxis of fat embolism syndrome, 143:211
- torsion measurements in, 145:154
- tubercle transfer in patellar subluxation, 144:43
- Titanium alloy hip prosthesis, 144:166
- Toe conditions. *See* Foot
- Toenails, ingrown, 142:96
- Tomography, computerized
  - in orthopedic surgery, 139:142
  - in sternoclavicular dislocations, 140:12
- Torsion, tibial, measurements of, 145:154
- Tourniquet time, and postoperative quadriceps function, 143:194
- Traction
  - axial, affecting cervical spine, 140:47
  - Buck's, in fractures of thigh, 140:2
  - halofemoral, in thoracolumbar fracture-dislocations, 142:168
- Transfusions, leukocyte, in mucopolysaccharidosis, 140:194
- Transplantations. *See* Grafts
- Trapezium, bipartite, with adduction contracture of thumb, 145:199
- Trauma
  - and bilateral rupture of infrapatellar tendon, 142:131
  - and bowing of forearm in children, 139:121
  - dislocations in. *See* Dislocation
  - fractures in. *See* Fracture(s)
  - gunshot wounds, low velocity, 140:26
  - and internal derangement of sternoclavicular joint, 141:247
  - ligamentous injury affecting ankle movement, 140:266
- Trephination, historical aspects of, 139:3
- Trochanteric fractures of femur. *See* Femur
- Tryptophan metabolism, in joint diseases, 139:232
- Tuberculosis, skeletal (*Letters*), 144:338
- Tuberculous osteomyelitis, in heroin users, 144:243
- Tumors
  - of bone, in childhood, and adjuvant arterial embolization, 139:133
  - computerized tomography in, 139:142
  - early clinical picture of synovioma, 142:185
  - epiphyseal osteochondroma of anterior cruciate ligament, 139:86
  - giant cell, acid phosphatase localization in, 141:295
  - glomus, treatment with prostaglandin inhibition, 143:171
  - osteogenic sarcoma. *See* Osteosarcoma
  - osteoid osteoma
    - of clavicle, 143:162
    - transplanted into athymic mice, 141:275
  - and osteomalacia, 139:217
  - paramedian neuroma presenting as ganglion, 140:45

- of pelvic girdle, simulating herniated lumbar disks, 138:217
- renal cell carcinoma
  - metastasis to skeletal muscle, 145:227
  - regression of osseous metastases, 138:246
- Turner's syndrome, synovial chondromatosis with, 144:183

## U

- Ulcers of foot
  - oxacillin in, and clostridial myonecrosis development, 138:250
  - perforating, hereditary, 140:189
- Ulna. *See also* Radioulnar joint
  - fracture of, and range of movements in childhood, 139:114
  - non-union of, treatment of, 138:141
  - compression plate in, 138:154
  - open fracture of, Vidal-Adrey external fixation in, 140:111
  - pseudarthrosis with neurofibromatosis, 139:125
  - traumatic bowing of, in children, 139:121
- Ulnar nerve compression at elbow, medial epicondylectomy in, 139:174
- Ultrasound, transcutaneous, in dysvascular foot lesions, 142:110
- Ultrastructural studies. *See* Electron microscopy

## V

- Varus deformity of knee, and compression osteotomy of tibia, 140:103
- Vasculature
  - anomalies with hemihypertrophy, 144:205
  - arterial embolization use in bone tumors of childhood, 139:133
  - arteriosclerosis and dysvascular foot lesions, 142:110
  - changes in hip after traumatic dislocation, 140:255
  - femoral reaming affecting, in hip arthroplasty, 141:74
  - gluteal artery laceration in iliac bone graft surgery, 140:204
  - impairment in synovial cyst of shoulder, 143:151
  - pulmonary embolism
    - and hydroxychloroquine prophylaxis in hip surgery, 144:174
  - severe arterial injury in hip joint surgery, 141:122
  - thrombophlebitis simulation by popliteal cyst, 144:215
  - venous thrombosis
    - coagulolysis assay in detection of, 142:190
- Vertebra. *See* Spine
- Vidal-Adrey external fixation
  - in infected non-unions, 140:122
  - in open fractures, 140:111

Viscoelastic behavior of tissues, in leg lengthening  
by distraction, **139:102**

Vitamin D

metabolism in health and disease, **139:206**  
therapy with, and calcium requirements, **140:216**  
transport of metabolites, **142:249**

W

Walking

function of toes in, **142:24**  
intramuscular pressure during, **145:292**

Warfarin, with low-dose heparin, after hip replacement, **141:134**

Whipple's disease, **143:8**

Wrist

arthrodesis of, **142:164**  
in De Quervain's disease, **143:165**  
intercarpal fusion for treatment of instability,  
**144:159**

paramedian neuroma presenting as ganglion,  
**140:45**  
surgery in rheumatoid arthritis, **142:159**

Y

Yersinia arthritis

in childhood, **143:81**  
clinical spectrum of, **143:64**

Z

Zickel nail, in fractures of proximal femur, **141:213**

Zigzag incisions, for improved exposure and scarring, **145:202**

Z-plasty lateral retinacular release, in compression  
syndrome of knee, **144:110**

# Authors' Index—Volumes 138–145

## A

Abraham, E., 145:168  
 Ahlgren, O., 145:126  
 Ahmadi, B., 145:150  
 Akbarnia, B. A., 145:150  
 Albin, D., 139:276  
 Albright, J. A., 145:163  
 Allende, B. T., 142:164  
 Allgöwer, M., 138:26, 105, 132  
 Amstutz, H. C., 141:17, 111;  
 145:37  
 Anderson, L., 141:50  
 Andersson, S. M., 144:226  
 Andrish, J., 138:279; 139:52  
 Antopol, S. C., 143:162  
 Aprin, H., 144:260  
 Aubriot, J. H., 145:91

## B

Ball, J., 143:30  
 Banzon, M. T., 145:224  
 Baratz, M., 140:159, 162  
 Barmada, R., 144:212  
 Barnes, A. G., 143:171  
 Barron, D. W., 145:183  
 Barry, M., 144:9  
 Bartzke, G., 138:84  
 Baumann, J. U., 145:292  
 Bechterew, V. M., 143:4  
 Becker, M. H., 143:162  
 Becker, R. O., 141:266;  
 143:266; 145:239  
 Beljan, J. R., 142:219  
 Benson, M., 145:37  
 Berg, E., 138:310; 142:234  
 Bick, E. M., 139:2  
 Bierbaum, B. E., 141:102  
 Bigliani, L. U., 139:133  
 Binder, W., 138:62  
 Black, J., 140:262  
 Blakemore, W. S., 144:305  
 Blazina, M. E., 142:135; 144:98  
 Bleck, E. E., 145:172  
 Bliven, F. E. Jr., 142:234  
 Bluestone, R., 143:2, 53  
 Blumenfeld, E. L., 141:143  
 Böhler, J., 142:264  
 Bojsen-Møller, F., 142:10  
 Bonnett, C. A., 139:40; 143:174  
 Booth, A. D., 141:237  
 Booth, C. M., 140:17

Borges, A. F., 145:202  
 Boswick, J. A. Jr., 140:178  
 Bowker, J. H., 140:172  
 Boyd, R. J., 141:311  
 Brandt, K. D., 144:215  
 Brettler, D., 140:26  
 Brighton, C. T., 140:240;  
 145:300  
 Broukhim, B., 142:135; 144:98  
 Brower, E. M., 139:17  
 Brown, J. C., 139:40; 143:174  
 Brown, R. H., 139:17  
 Bruce, D., 138:94  
 Brumfield, R. H., 142:159  
 Brunner, Ch., 138:62  
 Bryan, R. S., 145:23  
 Buck, G., 140:2  
 Buckwalter, J. A., 139:259  
 Bullough, P. G., 144:63  
 Bunnell, W. P., 140:12  
 Burger, E. H., 142:196  
 Burri, C., 138:84  
 Burstein, A. H., 141:55; 144:63  
 Burton, D. S., 140:23

## C

Cangemi, P. J., 143:222  
 Cannon, C. L., 138:217  
 Capen, D., 145:189, 193  
 Carroll, N. C., 140:131  
 Carver, D., 140:42; 145:158  
 Casscells, S. W., 144:45  
 Castle, M. E., 142:223  
 Ceder, L. C., 144:110  
 Chandler, R. W., 145:227  
 Chapman, M., 138:120; 141:303  
 Charnley, J., 141:138; 144:174  
 Chekofsky, K. M., 139:86  
 Childers, J. C. Jr., 144:114  
 Chisena, E., 140:262  
 Chrisman, O. D., 144:27  
 Christensen, S. B., 140:85  
 Chum, M., 144:84  
 Chvapil, M., 144:326  
 Cimino, W. R., 145:277  
 Clark, J. A., 139:102  
 Clark, N., 141:237  
 Clarke, R. P., 141:102  
 Cofield, R. H., 142:44  
 Cohen, N. J., 141:260  
 Coldewey, J., 138:84  
 Combs, S. P., 145:287

Comp, P. C., 142:190  
 Conaty, J. P., 142:159  
 Conforty, B., 144:272  
 Conrad, G., 139:185  
 Constant, R. B., 141:310  
 Cook, R. S., 145:163  
 Cooper, R. R., 139:259  
 Corkill, J. A., 141:90  
 Cosgriff, S. W., 141:134  
 Coughlin, M. J., 142:57  
 Coulton, L. A., 140:247  
 Court-Brown, C. M., 143:148  
 Coventry, M. B., 145:29, 85  
 Cowell, H. R., 144:255  
 Cox, J. S., 140:37  
 Cracchiolo, A., III, 145:2, 37  
 Cristofaro, R. L., 139:40  
 Crout, D. H. G., 141:90  
 Crugnola, A., 145:277  
 Cullen, J. M., 145:239  
 Cupic, Z., 141:28  
 Curtis, B. H., 139:33  
 Curtis, R. S., 144:128

## D

Dahners, L., 139:267  
 D'Ambrosia, R. D., 140:266  
 Danis, R., 138:23  
 Daruwalla, J. S., 139:114  
 Davidson, T. M., 140:50  
 Davis, J., 144:121  
 Davis, R. W., 142:237  
 Day, A. J., 141:181  
 Day, B., 143:125  
 Deburge, A., 145:91  
 DeCesare, W. F., 140:137  
 DeHaas, W. G., 145:245  
 DeLee, J. C., 142:115  
 Del Pizzo, W., 142:135; 144:98  
 Del Sel, H. J., 141:138  
 Derbes, V. L., 142:185  
 Dick, H. M., 139:133  
 Dickson, J. H., 144:128  
 Doherty, J. H., 141:184  
 Donnelly, P. J., 139:92  
 Dorfman, H. D., 141:295  
 Drennan, J. C., 139:33  
 Drezner, M. K., 139:206  
 Dudnikov, M., 139:58  
 Dunn, J. M., 144:121  
 Dussault, R., 144:16  
 Duthie, R. B., 138:197

Du Toit, G. T., 141:223  
DuVries, H. L., 142:57

## E

Ehrlich, M. G., 144:293  
Eid, A. M., 144:338  
Eilert, R. E., 139:97  
Eismont, F. J., 141:55  
Elbaz, R., 142:93  
Ellwood, S. C., 144:114  
Ender, H. G., 142:264  
Erwin, W. D., 144:128  
Esdaile, J., 143:46  
Evanski, P. M., 140:42; 145:158  
Evarts, C. M., 141:158  
Ewald, F. C., 145:78  
Eyanson, S., 144:215

## F

Farine, I., 141:307; 144:194  
Fernand, R., 139:49  
Ficat, D., 144:74  
Ficat, R. P., 144:55, 74  
Fielding, J. W., 139:86; 144:43  
Finerman, G. A. M., 141:275;  
145:37, 85  
Finsterbush, A., 144:276  
Foltz, R. N., 141:66  
Ford, D. K., 143:59  
Fornasier, V. L., 141:256, 303;  
142:215; 143:168  
Forouzes, S., 143:53  
Fountain, S., 140:78  
Fowles, J. V., 144:338  
Fox, J. M., 142:135; 144:98  
Freeman, M. A. R., 145:47  
Fries, I., 142:146  
Frost, H. M., 150:58; 143:227

## G

Gaillard, P. J., 142:196  
Ganel, A., 141:307; 144:194  
Ganjavian, M.-S., 145:150  
Ganz, R., 138:30  
Garfin, S. R., 140:50  
Garland, D. E., 140:169;  
145:189  
Gauntt, C., 139:174  
Gauthier, G., 142:90, 93  
Gedeon, P., 144:74  
Geist, R. W., 138:5  
Genet, J. P., 145:91  
Gerber, L. H., 143:133  
Gerken, S. C., 144:299

Ghobadi, F., 145:150  
Ghosh, L., 144:212  
Giblin, P. E., 140:66  
Gillespie, H. S., 143:125  
Gillett, H. G. du P., 142:103  
Glimcher, M. J., 138:284;  
139:283; 140:273; 141:311  
Gold, E. W., 143:222  
Goodman, N. L., 138:311  
Gordon, S. L., 144:337  
Goss, T. P., 141:134  
Gossling, H. R., 140:96  
Gradillas, E. L., 140:153  
Gradisar, I. A., Jr., 144:84  
Graham, C. E., 140:72  
Grant, T. T., 141:275  
Gray, D. H., 143:245  
Greene, R., 140:23  
Greenwald, A. D., 141:96;  
145:287  
Greer, R. B., 141:50  
Gregg, J. R., 143:260  
Groves, R. J., 139:167  
Gruber, M. A., 141:188  
Gruen, T. A., 141:17  
GUEPAR Group, 145:91  
Gunther, S. F., 140:184  
Guștilo, R. B., 143:211

## H

Haber, J., 140:178  
Haddad, J. G., Jr., 142:249  
Ha'eri, G. B., 139:150; 141:256,  
303  
Hagy, J. L., 142:24  
Hahn, G., 144:249  
Hall, J. E., 144:31  
Halpern, A. A., 140:23, 78;  
141:251; 143:151; 145:172,  
187, 213  
Ham, O. E., 138:217  
Hama, H., 145:264  
Hamilton, H. W., 141:237  
Hammerle, C. P., 138:30  
Hanaoka, H., 145:252  
Hänggi, A., 145:292  
Hansen, S. T., 138:56  
Hardy, J. R., 141:2  
Harman, K., 138:243  
Harrelson, J. M., 139:206  
Harrington, P. R., 144:128  
Hasson, N., 145:187  
Haukeland, W., 138:231  
Hawkins, D., 143:46  
Heimbach, R. D., 144:121  
Heiple, K. G., 139:81

Hekkelman, J. W., 142:196  
Hellewell, A. B., 142:219  
Helms, C. A., 139:142  
Hensinger, R. N., 143:131  
Herrmann-Erlee, M. P. M.,  
142:196  
Heslin, D. J., 139:88  
Hestenes, O., 138:231  
Hewes, T. F., 140:37  
Hillman, F., 138:228  
Hiroshima, K., 144:186  
Hirschowitz, D. L., 141:111  
Hirsh, L., 142:135  
Hoek, K. J., 139:40  
Hoerner, H. E., 142:185  
Holmes, M. D., 144:326  
Holmes, R., 138:279  
Homsy, C. A., 143:90  
Horacek, K., 145:37  
Horner, H. E., 144:299  
Horowski, H., 141:307;  
144:194  
Horsman, A., 140:216  
Houghton, G. R., 138:197  
Howard, F. M., 140:103  
Hoyt, W. A., Jr., 144:84  
Huang, T. L., 141:260; 144:212  
Hughes, J. L., 138:111  
Hughes, P. W., 141:143  
Hughston, J. C., 140:169; 144:36  
Hungerford, D. S., 144:9, 55  
Hunter, L. Y., 143:131  
Husseini, N., 144:276  
Hutton, W. C., 142:64

## I

Ichinose, H., 142:185  
Igari, T., 139:232  
Ingleton, P. M., 140:247  
Ingilis, A. E., 140:145, 175  
Insall, J. N., 140:145; 144:63;  
145:68  
Ivey, F. M., 144:98

## J

Jablon, M., 144:135  
Jacocks, R., 142:190  
James, M. L., 141:90  
James, S. L., 143:90  
Javier, M., 145:187  
Jayakumar, S. S., 139:97  
Johnson, K. A., 142:44  
Johnson, R., 144:174  
Johnston, A. D., 139:133  
Jones, E. C., 140:145

Jones, R. E., 139:174  
Jones, R. P., 140:21

## K

Kahanovitz, N., 143:174  
Kahn, B., 140:204  
Kahn, D. S., 140:80  
Kalamchi, A., 139:52  
Kamali, M., 142:131  
Kamhin, M., 144:194  
Kammerer, W. S., 141:50  
Katz, J. F., 141:166  
Kaufers, H., 144:51; 145:110  
Keagy, R. D., 144:269  
Kenesi, C., 145:94  
Kenzora, J. E., 138:284;  
139:283; 140:273  
Khermosh, O., 140:162  
Kier, L., 140:47  
Kilfoyle, R. M., 144:260  
Kim, E. E., 144:220  
Kim, J.-M., 141:287  
King, R. V., 144:311  
Kinman, P. B., 145:136  
Kinoshita, T., 138:263  
Klein, M. J., 143:162  
Kling, J. M., 142:234  
Köberle, G., 141:310  
Kopf, E. H., 143:171  
Kopta, J. A., 142:190  
Korhonen, L. K., 140:208  
Korostoff, E., 145:300  
Kotcamp, W. W., 140:189  
Krempen, J. F., 140:111, 122  
Krugmire, R. B., Jr., 144:311  
Kuhnen, W., 139:167  
Kumar, K., 140:32  
Kummer, F. J., 141:2  
Kuner, E., 138:45, 111  
Kuo, K. N., 144:183

## L

Laaveg, S. J., 139:68  
Lake, F. T., 142:237  
Lambert, D. C., 138:77  
Lampert, M., 143:133  
Lance, E. M., 142:146  
Lane, J. M., 140:262  
Langan, P., 141:169  
Langer, F., 141:308  
Laros, G. S., 138:2  
Larsen, I., 142:146  
Larson, R. L., 144:110  
Larsson, S.-E., 145:117, 126  
Laskin, R. S., 141:188  
Lassmann, G., 142:73

Latta, L. L., 144:166; 145:136,  
208  
Laurin, C. A., 144:16  
Lazarovici, M. A., 145:245  
Lentz, M. W., 143:155, 200  
Leonard, M. H., 145:193  
Leong, J. C. Y., 139:102  
Levesque, H. P., 144:16  
Levine, J., 139:179  
Levinsohn, E. M., 140:12  
Light, T. R., 139:110; 145:230  
Liebler, W. A., 144:43  
Lindenbaum, B. L., 140:109  
Lindholm, T. S., 141:275  
Ling, R. S. M., 141:90  
Lipscomb, P. R., 142:48  
Lone, F. J., 141:237  
Loprete, F. L., 141:196  
Lord, G. A., 141:2  
Lotem, M., 144:272  
Louis, D. L., 143:194  
Lowe, L. W., 142:64  
Lumsden, R. M., 142:30  
Lunseth, P. A., 139:81  
Luscher, J. N., 138:74  
Luskin, R., 143:162  
Lyden, J. P., 141:184  
Lynch, J. J., 140:21  
Lyne, E. D., 141:176

## M

Ma, R. Y. P., 139:102  
MacEwen, G. D., 139:52, 64  
Macfarlane, J. D., 144:215  
Macnicol, M. F., 143:148  
Maehara, T., 140:58  
Magerl, F., 138:62  
Mahoney, M., 138:120  
Makin, M., 139:156  
Malekafzali, S., 145:154  
Mann, R. A., 142:24, 57  
Manske, P. R., 139:125  
Maquet, P., 144:70  
Marcove, R. C., 141:217  
Marino, A. A., 145:239  
Markolf, K. L., 141:111  
Marmor, L., 144:299  
Marshall, D. H., 140:216  
Marshall, J. L., 143:97  
Martens, M., 141:199, 203  
Martin, R. B., 138:271  
Martin, T. J., 140:247  
Masi, A. T., 143:15  
Matejczyk, M.-B., 141:96  
Matsen, F. A., III, 144:311  
Matter, P., 138:132  
Matthews, L. S., 145:110  
Maynard, J. A., 139:259  
Mays, J. D., 142:159  
McAdoo, W. G., 141:44  
McBeath, A. A., 141:66  
McBroom, R., 138:94  
McCarthy, E. F., 141:295  
McCullough, C. J., 144:264  
McKusick, K., 144:293  
McLaughlin, R. E., 139:276  
McManama, G. B. Jr., 144:31  
McManus, F., 139:88  
McMaster, W. C., 138:238  
McMillan, R. D., 141:217  
McNeice, G. M., 141:2  
Meals, R. A., 143:158  
Medsger, T. A. Jr., 143:15  
Melick, R. A., 140:247  
Melo, J. C., 139:92  
Menczel, J., 139:156  
Mendes, D. G., 140:26; 144:230  
Meyer, R. P., 141:122  
Micheli, L. J., 140:66; 144:31  
Michelsen, W. J., 139:133  
Michelson, J.-E., 144:321  
Micik, Z., 138:311  
Miki, T., 145:264  
Milgram, J. W., 144:269;  
145:179  
Miller, H., 144:135  
Miller, W. A., 144:233  
Miller, W. E., 140:92  
Mirra, J. M., 141:275  
Miskew, D. B. W., 138:250  
Miyazaki, A., 140:58  
Mizushima, T., 140:194  
Moberg, E., 142:55  
Moll, J. M. H., 143:66  
Mølster, A., 138:231  
Montanaro, A., 138:222  
Moon, M.-S., 141:287  
Moore, T. M., 145:227  
Morawa, L. G., 141:176  
Moran, J. M., 141:96  
Moreland, J. R., 145:47  
Morgan, J. R., 142:237  
Morrey, B. F., 139:142; 142:44;  
144:121  
Morrison, D. M., 145:245  
Morrissy, R. T., 144:154  
Moshel, M., 144:230  
Morton, T. G., 142:4  
Mubarak, S. J., 140:50, 131  
Muggler, E., 138:84  
Muhr, G., 138:41  
Mulier, J. C., 141:199, 203  
Muller, M. E., 138:141  
Murachi, S., 143:251  
Murray, W. R., 142:96



# N

- Nachbur, B., 141:122  
Nagel, D. A., 140:78  
Nalebuff, E. A., 144:154  
Nash, C. L., Jr., 139:17  
Nasr, E., 141:217  
Nasseri, D., 145:150  
Neale, H. W., 143:200  
Nehmkis, A. M., 140:42,  
145:158  
Nehme, A-M. E., 144:198  
Nelson, C. L., 141:74  
Nelson, V., 139:58  
Newton, S. E., III, 142:141  
Nicholls, P. J., 142:234  
Nichols, T., 140:23  
Nijweide, P. J., 142:196  
Nilsson, J. E., 139:121; 144:226  
Nishioka, J., 140:194  
Nixon, J. E., 143:260  
Nogami, H., 143:251  
Nordin, B. E. C., 140:216  
Norimatsu, H., 138:254; 139:250  
Norris, S., 144:293  
Noyes, F. R., 143:155, 200  
Nunamaker, D. M., 138:167

# O

- Ogata, K., 139:128; 145:273  
Ogden, J. A., 139:110; 145:230  
Ogilvie-Harris, D. J., 143:168  
Ogino, T., 143:251  
Ohkubo, Y., 138:246  
Oikarinen, J., 140:208  
Oka, M., 145:264  
Oki, T., 143:251  
Okubo, M., 138:263  
Olerud, S., 138:231; 142:262, 266  
Olin, F. H., 140:172  
Ono, K., 140:194; 144:186  
Oohira, A., 143:251  
Ozeki, K., 143:251

# P

- Pace, N., 142:237  
Panjabi, M. M., 140:47; 143:271  
Pankovich, A. M., 138:250;  
143:138  
Papo, I., 140:159  
Pappas, A. M., 144:198  
Parker, H. G., 142:123  
Parlasca, R., 140:266  
Patterson, R. L. Jr., 142:146  
Paul, D. F., 139:142  
Paul, I., 145:277

- Paval, A., 142:146  
Pederson, H. E., 144:178  
Pekman, W. M., 139:58  
Perren, S. M., 138:167, 175  
Peterson, C. A., 140:96  
Peterson, L. F. A., 145:23  
Phelps, D. B., 140:178  
Philippe, J., 144:55  
Phillips, W. A., 138:17  
Pick, R. Y., 143:165  
Pickett, J. C., 144:2, 103  
Pierce, R. O., Jr., 141:247  
Pinzur, M. S., 138:250  
Pogrand, H., 139:156; 144:337  
Pollack, S. R., 145:300  
Post, M., 144:135  
Postacchini, F., 138:222  
Powers, J. A., 143:120  
Pratt, A., 140:47  
Prewitt, J. M., III, 143:90  
Price, G. F. W., 145:217  
Pryor, M., 143:191  
Puglisi, A. S., 144:43

# Q

- Quigley, T. B., 142:262

# R

- Rab, G. T., 139:28  
Rabinowitz, J. L., 143:260  
Radin, E. L., 144:107; 146:277  
Raff, M. J., 139:92  
Rag, J. P., 145:224  
Ranawat, C. S., 140:145  
Rang, M., 139:88, 144:249  
Rask, M. R., 139:164; 140:45;  
141:308; 142:176, 182;  
143:171, 183  
Raugstad, T. S., 138:231  
Reed, J., 143:133  
Reger, S. I., 139:276  
Reichmanis, M., 145:239  
Reider, B., 143:97  
Reimann, I., 140:85  
Renshaw, T. S., 139:33; 145:163  
Resnick, D., 143:38  
Reuben, J. D., 139:17; 141:55  
Reyman, T. A., 142:223  
Rhineland, F. W., 141:74  
Rich, B. H., 139:58  
Ries, M., 145:277  
Riley, L. H., 145:85  
Rinsky, L., 140:78; 145:213  
Riska, E. B., 144:321  
Ritter, M. A., 141:44; 143:115  
Rittmann, W. W., 138:132

- Robin, G., 139:156  
Robinson, S. C., 145:237  
Roca, R. P., 144:238  
Roffman, M., 144:230  
Roper, B. A., 140:17  
Rose, R. M., 145:277  
Rosen, H., 138:154  
Rosenberger, R., 142:168  
Rosenthal, L., 143:46  
Ross, P. M., 141:176  
Roux, C., 144:4  
Rüedi, T. P., 138:74, 105  
Ryan, J. R., 144:178  
Rydholm, U., 139:121

# S

- Sabel, I., 143:133  
Sahgal, S., 141:260  
Saito, T., 138:246  
Sajadi, K., 140:189  
Sakou, T., 140:58  
Salama, R., 140:159  
Saliciccioli, G. C., 144:178  
Salvati, E. A., 141:143  
Sarmiento, A., 144:166;  
145:136, 208  
Saunders, E. A., 141:213  
Saunders, K. C., 143:194  
Savino, A. W., 144:183  
Schaller, J. G., 143:76  
Schatzker, J., 138:77, 94;  
141:256, 303; 145:146  
Schibli, M., 138:132  
Schiller, M., 139:92  
Schlicke, L. H., 140:47; 143:271  
Schneider, J. R., 140:184  
Schneider, M., 142:223  
Schoenecker, P. L., 139:128  
Schroeder, K. E., 143:191  
Schulak, D. J., 145:146  
Schumacker, H. R., 143:260  
Schurman, D. J., 141:251  
Schweikert, C. H., 138:45  
Schweppy, I., 142:244  
Scott, W. N., 139:86; 140:175;  
145:68  
Sculco, T. P., 140:175  
Sedlin, E. D., 140:26  
Segal, D., 140:21  
Seligson, D., 148:243  
Serrano, J. A., 141:295  
Shahriaree, H., 140:189  
Shea, W. D., 141:102  
Sheehan, J. M., 145:101  
Sheikh, Sh., 140:189  
Sheridan, J., 139:128  
Sherk, H. H., 141:196

Sherrington, C. S., 145:4  
 Shim, S. S., 140:255  
 Shimamura, T., 139:232  
 Shimazu, A., 138:263  
 Shiraishi, S., 138:246  
 Shoji, H., 140:266  
 Shulman, I., 145:227  
 Shybut, G. T., 138:12  
 Silver, R. A., 140:111, 122  
 Simpson, M., 140:216  
 Singh, I., 144:305  
 Singh, M., 144:135  
 Sledge, C. B., 145:78  
 Slocum, D. B., 143:90  
 Smith, R. K., 144:280  
 Smith, R. W., 142:2, 19  
 Smythe, H., 143:84  
 Snape, W. J., 141:196  
 Snook, G. A., 144:27  
 Solomon, G. C., 142:237  
 Sotelo, A., 140:111, 122  
 Spadaro, J. A., 143:266  
 Speak, K. S., 143:245  
 Specht, E. E., 144:280  
 Speer, D. P., 139:267; 144:326  
 Spiegel, P. G., 138:2, 26; 139:58  
 Splain, S., 139:179  
 Sprague, B. L., 139:68  
 Sprenger, T. R., 140:103  
 Stamp, W. G., 139:276; 142:168  
 States, J. D., 141:158  
 Stefanello, A., 139:49  
 Steg, N. L., 144:255  
 Steinberg, G. G., 145:199  
 Steinberg, R., 139:156  
 Steurer, P. A., 144:84  
 Steves, C. R., 142:190  
 Stewart, C. L., 141:74  
 Stewart, R. D., 141:74  
 Stinchfield, F. E., 139:133; 141:34  
 Stokes, I. A. F., 142:64  
 Stoll, D. A., 144:103  
 Stoltzenberg, J. J., 143:211  
 Stott, J. R. RL., 142:64  
 Stringer, E. A., 133:115  
 Stuyck, J., 141:199, 203  
 Sullivan, J. A., 144:233  
 Sullivan, J. D., 140:80  
 Summer-Smith, G., 141:303  
 Sutherland, D. H., 145:292  
 Swanson, A. B., 142:30  
 Swanson, G. D., 142:30  
 Syftestad, G., 141:281

## T

Talab, Y. A., 141:158  
 Talmage, R. V., 138:254;

139:250  
 Tanner, J., 145:213  
 Tarr, R. R., 144:166; 145:208  
 Taylor, F. B., Jr., 142:190  
 Templeton, T. S., 141:213  
 Thomas, R., 138:41  
 Thomas, R. J., 138:30, 141; 145:47  
 Thompson, G. H., 139:70; 144:249  
 Thorpe, W., 143:133  
 Toledo, L. C., 139:64  
 Tomimura, K., 140:58  
 Topilsky, M., 140:162  
 Torisu, T., 143:107  
 Toussaint, J. B., 144:74  
 Townsend, P. F., 144:255  
 Trafton, P. G., 141:308  
 Treharne, R. W., 140:240; 145:300  
 Tria, A. J., 145:68  
 Tsai, T.-M., 139:182  
 Tsang, K. Y., 144:305  
 Tscherne, H., 138:41  
 Tseng, C. H., 141:260  
 Turner, R. H., 145:85  
 Turner, T. M., 145:208

## U

Uematsu, A., 139:169; 144:159, 220  
 Upshaw, J. E., 145:85  
 Urist, M. R., 141:275, 281  
 Urovitz, E. P. M., 142:215  
 Urs, N. D. K., 144:43

## V

Vainio, K., 142:85  
 Van Audekercke, R., 141:199, 203  
 Vander Wiel, C. J., 138:254; 139:250  
 Venugopal, V., 144:264  
 Verkkala, K., 141:122  
 Vertseeg, C. N., 139:58  
 Volz, R. G., 140:153; 144:326  
 Von der Mark, K., 139:185

## W

Wadsworth, T. G., 144:151  
 Wagner, F. W., Jr., 142:2, 110  
 Waisman, M., 142:244  
 Wallach, S., 144:284  
 Walsh, W. M., 144:36  
 Wang, G.-J., 139:276; 142:168  
 Warren, R. F., 143:97

Warren, S. L., 144:299  
 Wasserkrug, H. L., 141:295  
 Waterhouse, G. M., 140:216  
 Waters, R. L., 145:189  
 Waugh, T. R., 140:42  
 Waylonis, G. W., 143:194  
 Weber, B. G., 140:103  
 Weber, H., 138:111  
 Weber, P. C., 143:165  
 Webster, D. A., 143:266  
 Weiner, D. S., 144:336  
 Weinert, C. R. Jr., 142:139  
 Weingarden, S. I., 143:194  
 Weissman, S. L., 140:159  
 Weller, S., 138:45  
 Westin, G. W., 139:70  
 Wheeler, M. E., 139:68  
 Wheeler, R. D., 141:251  
 White, A. A., III, 140:47; 143:271

Whitehill, R., 142:168  
 Whiteside, L. A., 145:273  
 Wickiewicz, T. L., 143:97  
 Wickstrom, J. K., 142:185  
 Wientroub, S., 140:159, 162  
 Wiley, A. M., 139:150  
 Wilkes, L. L., 138:217  
 Willenegger, H., 138:111  
 Williams, C., 141:303  
 Wilson, P. D., Jr., 141:143  
 Wilson, S. A., 144:43  
 Wilson, T. C., 144:27  
 Winquist, R. A., 138:56  
 Winter, W. G., 138:311  
 Wiss, D. A., 142:139  
 Wood, M. B., 145:154  
 Woods, G. W., 143:90  
 Worrell, R. V., 144:91  
 Wright, T. M., 141:55  
 Wright, V., 143:8  
 Wroblewski, B. M., 138:228; 141:71  
 Wyss, A., 138:62

## Y

Yablon, I. G., 140:21  
 Yamamoto, S., 145:60  
 Yamamuro, T., 145:264  
 Yau, A. C. M. C., 139:102  
 Yoshikawa, T. T., 144:238  
 Yuan, H. A., 140:12  
 Yukimura, T., 138:263

## Z

Zimmerman, A. J., 141:188  
 Zürcher, R., 141:122  
 Zych, G. A., 144:166





